Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Spectrum Networks Group, LLC Applications and Waiver Request to Allow It to Provide Private, Internal Machine-to-Machine Communications to Businesses on 900 MHz Business/Industrial/Land Transportation Channels	)	WT Docket No. 14-100

REPLY COMMENTS OF SPECTRUM NETWORKS GROUP, LLC

August 11, 2014

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REPLY COMMENTS OF SPECTRUM NETWORKS GROUP, LLC

I. INTRODUCTION AND SUMMARY

Spectrum Networks Group, LLC ("SNG") submits these reply comments in the above-referenced proceeding in support of its applications and waiver requests to use 896-901/935-940 MHz band ("900 MHz I/B band") channels to provide private, internal machine-to-machine communications to businesses. SNG and its partners are assisting SNG's subsidiary, M2M Spectrum Networks, LLC ("M2M") in developing a nationwide, licensed, machine-to-machine network. The 900 MHz I/B band channels will be an integral component to the network.

Fourteen parties filed comments in this proceeding. Eleven of those comments were filed by M2M's partners and potential customers.[1] They have seen the work SNG and M2M have undertaken to date and their testimony reflects the exciting opportunities that a network like M2M's can provide for businesses on the Internet of Things. No one party filed a petition to deny SNG's applications. There were only three critical commenters. The Enterprise Wireless

[1] They include comments from partners 4G Unwired, Edge Communications, Commdex, Powder River, and Raveon as well as potential clients such as Synetic Software Solutions, Automated Refreshment Services, GPSTrackIt, and Mellish Eye Associates.

Alliance ("EWA"), as it has previously, filed comments expressing its opposition to SNG's applications and waiver requests and suggesting additional conditions. The Utilities Telecom Council ("UTC") and Motorola Solutions, Inc. ("Motorola") also filed comments, largely along the same lines. Neither of these new commenters raises any substantial issues in addition to those first raised by EWA in an informal opposition filed on January 6, 2014,[2] and repeated in an additional informal opposition filed on April 8, 2014.[3] In those pleadings, EWA questioned SNG's eligibility to hold the licenses, doubted SNG's business plans, and surmised that SNG was merely trying to warehouse spectrum in anticipation of speculative profit.[4] SNG and M2M have already conclusively answered these charges,[5] and subsequent events such as the initial trial of M2M's network provide additional evidence in support of SNG's and M2M's previous filings. Notably, EWA now recognizes that "M2M's CEO and co-founder has a commendable history in wireless communications."[6]

UTC's concern about spectrum scarcity is misplaced: SNG will only seek to use fallow spectrum. In any event, SNG can assure UTC that, far from "monopolizing" the frequencies, SNG has agreed to submit to channel aggregation limits.

Motorola questions the assumptions behind the number of channels requested by SNG citing to the low duty cycle of machine-to-machine applications. In fact, however, many machine-to-machine applications will require a higher duty cycle. SNG and M2M have

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[2] Letter from Mark Crosby, EWA, to Marlene Dortch, FCC (Jan. 6, 2014).

[3] Letter from Mark Crosby, EWA, to Marlene Dortch, FCC (Apr. 8, 2014).

[4] *Id.* at 2-5.

[5] *See* Spectrum Networks Group, LLC, Reply to EWA's Opposition, FCC File No. 0006203140 *et al*. (Apr. 23, 2014); Letter from Pantelis Michalopoulos and Christopher Bjornson, Counsel to Spectrum Networks Group, LLC and M2M Spectrum Networks, LLC, to Marlene Dortch, FCC (June 24, 2014).

[6] EWA Comments at 2.

determined the number of channels they need based on extensive consultations with potential clients and the sophisticated business judgment of CEO Barclay Knapp. Contrary to the claim made by EWA and UTC that broadband spectrum is somehow a better home for machine-to-machine communications, the cost of broadband would prohibit many machine-to-machine applications from even getting off the ground. In addition, SNG hereby answers at length the questions about its technology and trunking protocols posed by Motorola.

Importantly, EWA now suggests that, should the Commission approve the applications, certain additional conditions would mitigate its concerns. While these additional express conditions are unnecessary, the combination of the conditions already proposed by SNG and the Commission's existing authority are amply adequate to satisfy the spirit of the additional requests made by EWA. For example, while M2M cannot make statements binding lessors with whom it enters into *de facto* leases, all such leases will be submitted to the Commission for approval, and the Commission will have the authority to attach conditions to its approval of those leases.

The record provides clear evidence that M2M is able and ready to deploy its network with dispatch; M2M's plans would serve the public interest; SNG should either be considered eligible to hold the requested 900 MHz I/B licenses or be granted a waiver of any applicable eligibility requirements; and the conditions to which SNG and M2M are prepared to submit will dispel any concern that is even remotely plausible.

II. M2M'S NETWORK IS BECOMING A REALITY AND WILL SERVE THE PUBLIC INTEREST

As this proceeding has progressed, so too has M2M's network development. What was merely a plan late last year has come together to the point of initial deployment. M2M has found partners to facilitate the operations of its network, acquired hosting sites for its equipment, and

recruited trial and potential customers for its services. M2M has also initiated its first trial using the vending machines of its trial customer, Automated Refreshment Services in Jacksonville, Florida. The initial coverage area consists of two towers in and around the downtown area. The installation is complete and network testing has been underway for several weeks with no problematic issues. The test devices have been interconnected successfully with M2M's Network Operations Center and the client's data center. Further device testing with continue through mid-August with installations in the client's vending machines during the week of August 25th.

M2M's partners are excited about the opportunity to become part of the Internet of Things through their work on M2M's network. 4G Unwired is providing wireless system design services for M2M and heralds M2M as part of "a push for intelligent solutions across a range of industries."[7] Edge Communications is providing monitoring and management services and sees "countless advantages to businesses, consumers, and the economy in general, including operating efficiencies, improved safety and security capabilities, energy savings, new products and services, and more."[8] Commdex Consulting is M2M's telecommunications systems integrator and touts M2M's network as a "stable" and "low-cost" replacement for legacy 2G machine-to-machine networks.[9] Powder River has already worked for M2M on 34 site acquisition projects in 24 states and is "excited and encouraged to see a new wireless provider building a nationwide network."[10] Raveon, M2M's equipment provider, has "developed a FCC Part 90 compliant system that operates on 217-220 MHz, which has allowed M2M and Raveon to conduct

[7] 4G Unwired Comments at 1.

[8] Edge Communications Comments at 1.

[9] Commdex Comments at 1.

[10] Powder River Comments at 1.

laboratory bench testing and field testing."[11] Raveon's innovative narrow-band networking and channel sharing technology will help M2M build an outstanding network across the 200, 800 and 900 MHz bands.[12]

M2M's potential customers are similarly enthusiastic about M2M's prospects. Synetic Software Solutions provides vending machine solutions and sees M2M's network as a means for allowing "new services to be provided that were not economically feasible previously."[13] Synetic has found "Barclay Knapp and his team at M2M Spectrum Networks highly professional and extremely credible."[14] Automated Refreshment Services believes that M2M will "improve the operations of our vending machines" and intends to use M2M's remote monitoring equipment for route management, product distribution, and customer service.[15] GPSTrackIt operates a nationwide vehicle tracking solution and notes that M2M's network "will help keep the device connectivity costs competitive."[16] The Border Commerce and Security Council views M2M's network as a means for delivering advanced capabilities for GPS tracking of personnel and vehicles, base-to-vehicle and vehicle-to-vehicle text messaging and alerts, ground sensor monitoring, motion detection monitoring, and asset protection. Dr. David Mellish sees opportunities for the medical community through applications that can run on M2M's network.[17]

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[11] Raveon Comments at 1.

[12] *Id.*

[13] Synetic Software Solutions Comments at 1.

[14] *Id.*

[15] Automated Refreshment Services Comments at 1.

[16] GPSTrackIt Comments at 1.

[17] Mellish Eye Associates Comments at 1-2.

In addition to being a potential customer, Dr. Mellish is also a partner of M2M's who intends to lease spectrum to M2M.[18]

It is easy to understand the enthusiasm of M2M's partners and potential customers. This network will enable a cornucopia of applications. They include: security and alarm monitoring; applications for electric power, water, gas, and waste utilities, including Smart Grid systems; fleet vehicle dispatch; location and route optimization; vending and other machine monitoring systems; applications for gas, oil, and mining operations, including pipelines and tankers; connected car and smart road solutions; and numerous other potential and emerging machine-to-machine applications.

III. NO SIGNIFICANT NEW ISSUES HAVE BEEN RAISED BY ANY COMMENTER

Motorola joins EWA, suggesting "critical gaps in [SNG's] Waiver showing" and "only the barest description" of its plans.[19] Throughout this proceeding, however, SNG and M2M have provided great detail to the Commission regarding their business plans, and have responded to every question put to them. SNG and M2M have provided this information even though, as EWA and UTC know from filing applications for their similarly situated clients,[20] no such showing is required. SNG will continue, however, to answer these questions in the interests of openness and transparency.

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[18] EWA indicates that it is unclear whether SNG seeks to include its potential leasing partners in the waiver relief requested. SNG believes that the results of this proceeding will provide clarity for the Commission, SNG, and its partners on how to move forward with those applications. EWA totally distorts SNG's relationship with its partners when it refers to the "troubling practice of selling applications." EWA Comments at 3. The Commission will have full opportunity to review the *de facto* lease arrangements between SNG and its partners.

[19] EWA Comments at 2-5; Motorola Comments at 4-5.

[20] *See, e.g.*, Tri-Electronics, Inc., FCC File No. 0006266925; Dirigio Wireless Inc, FCC File No. 0006247644; Golden State Communications, Inc, FCC File No. 0006249956.

EWA and UTC question M2M's choice of the narrowband channels of the 900 MHz I/B band. EWA asks why M2M cannot use "any number of other spectrum bands, licensed and unlicensed, that appear better suited for the described purpose."[21] M2M will use other frequency bands. But the 900 MHz I/B band has propagation characteristics, the potential for embedded antennas, and low costs for internal components that make it perfect for M2M's network. While EWA may be correct in asserting that 900 MHz channels are not available in some markets,[22] M2M will fill the holes in its networks with spectrum from other bands that is available in those areas.

EWA and UTC both contend broadband spectrum would be a superior choice for a machine-to-machine network.[23] While broadband has a place in the machine-to-machine communications ecosystem, given its cost, many applications would never be deployed. Indeed, M2M is having success approaching potential customers precisely because it offers to fill a void for the many 2G legacy machine-to-machine that are unable to afford the transition to 4G LTE networks. Motorola's comments confirm the disconnect between machine-to-machine and broadband, noting that, typically, these communications have very low duty cycles over a 24-hour period and would allow a single 12.5 kHz channel to accommodate far more than 70 devices.[24]

Motorola is correct about the nature of machine-to-machine communications, which is why M2M selected the narrowband channels in the 900 MHz band to be part of its network. At the same time, there are M2M applications that will require a higher duty cycle than can be

[21] EWA Comments at 4.

[22] *Id*. at n.10.

[23] EWA Comments at 4; UTC Comments at 4.

[24] Motorola Comments at 4.

provided by a single 12.5 kHz channel and certain M2M applications may require dedicated priority channel access to achieve the desired quality of service. In a related vein, Motorola also asks if any type of spectrum needs analysis has been performed to justify the frequency requests, and what customers have indicated that they are willing to subscribe to this service once the network is operational.[25] M2M's selections were based in large part on extensive discussions with trial and potential clients. While M2M will not disclose all of its clients or potential clients, the filings made by some of M2M's clients document expressions of interest to a far greater extent than is generally expected by Commission applicants.[26] M2M has had serious discussions with a wide range of potential clients, including electric utilities, defense contractors, security companies, healthcare providers, and vending companies.

Motorola wants to know if M2M has a sales and management team capable of managing a nationwide network.[27] It does. In fact, EWA admits that "M2M's CEO and co-founder has a commendable history in wireless communications."[28]

Motorola also asks how M2M's network is interconnected.[29] M2M's network will be integrated on a nationwide basis with users within each cell site operating independently. There will be no hand-off from cell site to cell site, which will require the network to utilize trunking technology for greater efficiencies in device communication management.

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[25] *Id.*

[26] *See, e.g.*, Synetic Software Solutions Comments at 1; Automated Refreshment Services Comments at 1; GPSTrackIt Comments at 1; Mellish Eye Associates Comments at 1-2.

[27] Motorola Comments at 4.

[28] *Id.* at 2.

[29] *Id.*

EWA and Motorola both inquire what type of technology and trunking protocols will be used.[30] The specific technology has been developed by M2M and its vendor partner Raveon. It is an all-IP, multi-user, trunked radio platform specifically tailored for narrowband frequencies called DART (for Dynamic Automatic Radio Transceiver). This technology will allow M2M's network to operate over a wide area, and to support large numbers of wireless devices. Unlike most radio trunking systems, M2M's system is optimized for data, GPS tracking, telemetry, meter reading, and industrial controls. M2M's trunking protocol is essential for efficient use of spectrum assets and to deploy new radios into complex systems. Its trunking features allow it to:

- configure radio modems dynamically, based upon current system needs and settings;
- assign channel bandwidth dynamically to devices needing to communicate;
- retry interval and duration is managed by local base station based on loading and quality of service;
- balance data communication loads based upon device priorities, system configuration and minimum quality of service;
- use additional RF channels when available and as needed;
- assign channels dynamically;
- make time configuration assignments for remote and out-of-communications continuous operation;
- provide a flexible ID scheme allowing for up to 4 trillion nodes; and
- allow end users to assign their own IDs to their own nodes, configure message routing, and deliver communications.[31]

As for the EWA and Motorola inquiries regarding FCC certification,[32] M2M has been using a system developed by Raveon and certified by the FCC to operate in the 217-220 MHz band for its field and laboratory testing.[33] The equipment as modified for the 809-862 MHz and

[30] EWA Comments at 4-5; Motorola Comments at 4-5.

[31] Additional information can be found at http://www.raveon.com/data_radio_info/dart-dynamic-automatic-radio-transmission-965/.

[32] EWA Comments at 4-5; Motorola Comments at 4-5.

[33] Raveon Comments at 1.

896-940 MHz bands will be submitted to the Office of Engineering and Technology for certification shortly.[34]

Another benefit to the technology M2M will be using is its agility. It can be easily reconfigured to new frequency bands. For instance, should the "Private Land Mobile Broadband 900 MHz Spectrum Initiative" suggested by EWA and UTC turn into a realistic proposal,[35] M2M could repurpose the frequencies on its network at minimal cost or disruption to permit such a network to be constructed.

UTC objects to the applications on scarcity grounds, claiming Commission approval "would exacerbate the current shortage of available B/ILT frequencies, which is already is plaguing utilities and critical infrastructure industries (CII)."[36] To begin with, UTC's claim of a shortage is belied by the fact that a large number of the channels remain open for assignment. As UTC itself admits, the channels requested by SNG are available. While they "*could* be used for PMRS,"[37] no other request for their use is pending. Second, it should be noted that electric utilities are some of the potential clients showing the most interest in M2M's network, indicating that some of UTC's members would rather see SNG's applications approved and then work with M2M than apply for those licenses themselves. Indeed, third, SNG and M2M propose to serve the internal, private communications needs of a variety of businesses on M2M's network—a more efficient way of avoiding spectrum scarcity than a system of licenses that are each dedicated to only one business. Finally, UTC's objection is based on the misconception that

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[34] *Id.*

[35] *See* Letter from James Crandall, American Petroleum Institute, Mark Crosby, EWA, and Connie Durcsak, UTC, to Roger Sherman, FCC, Re: Private Land Mobile Broadband 900 MHz Initiative (Feb. 27, 2014) ("EWA/UTC 900 MHz Initiative Letter").

[36] UTC Comments at 1.

[37] *See id.* at 4 (emphasis added).

"SNG will apply for all of the available channels in a given area for its SMR system and leave none for legitimate PRMS by Part 90 I/B eligible entities."[38] SNG assures UTC that it has no intention of doing so. In fact, SNG has proposed and will accept a spectrum aggregation limit of the total number of 900 MHz I/B channels that it can use in its system.

Contrary to Motorola's claim, the instant applications create no prejudice to "that class of licensees that are required to certify that a minimum of 70 mobile units for each requested channel will be placed into operation within 5 years."[39] SNG will itself be subject to the same certification. It will also be subject to additional requirements not applicable to other licensees.

Underlying the objections to the applications is the unsupported suggestion that "the SNG applications are speculative in nature and are intended to warehouse spectrum."[40] EWA takes this suggestion a step further by trying to link "a convicted felon, Pendleton Waugh," to SNG and M2M.[41] Mr. Waugh passed away in August 2011, almost three years ago. Even EWA freely recognizes the credentials of M2M's CEO Barclay Knapp.[42] Mr. Knapp's track record includes building networks from scratch. The business plans of M2M and SNG are not predicated on secondary market sales. Instead, the business plans are predicated on building the network. Any concerns that the spectrum will be warehoused and that the network not built are unfounded, and, in any event, dealt with by the proposed conditions below.

In fact, SNG notes that the opportunity for commenters such as EWA to air their views here is the direct result of SNG's candor. It is SNG that decided not to follow the apparent

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[38] *See id.* at 5.

[39] *See* Motorola Comments at 3.

[40] *Id.* at 4. UTC also asserts without support that "it is very likely that the spectrum will be warehoused by SNG." UTC Comments at 4.

[41] EWA Comments at 2-3.

[42] *Id.* at 2.

longstanding practice of using the 900 MHz I/B band to provide service to third parties by simply checking the "private carrier" box on FCC Form 601, not making a full disclosure, not acknowledging the relevant rules, and not requesting a waiver to the extent needed. Indeed, that practice seems to have been manifested recently, with two applications cleared by EWA and one by UTC. While the EWA applications were subsequently withdrawn, it is reasonable to ask if the withdrawals had to do with the fact that SNG raised the inconsistency between EWA's position on SNG's application and EWA's practice.[43]

IV. SNG SHOULD BE CONSIDERED ELIGIBLE TO HOLD 900 MHZ I/B LICENSES

Like EWA in previous pleadings, both UTC and Motorola oppose the applications and waiver requests on eligibility grounds because SNG and M2M will use the channels to meet the private, internal communications of Part 90 eligibles rather than their own internal needs, making SNG and M2M Specialized Mobile Radio ("SMR") providers that would be ineligible to hold the licenses.[44]

As SNG has indicated, these concerns are unavailing, in the first instance, because the Commission must treat all similarly situated parties the same.[45] Under FCC precedent and

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[43] *See* Letter from Pantelis Michalopoulos and Christopher Bjornson, Counsel to Spectrum Networks Group, LLC, to Marlene Dortch, FCC, ULS File No. 0006249956 (May 21, 2014); Letter from Pantelis Michalopoulos and Christopher Bjornson, Counsel to Spectrum Networks Group, LLC, to Marlene Dortch, FCC, ULS File No. 0006247644 (May 21, 2014).

[44] *See, e.g.*, Letter from Mark Crosby, Enterprise Wireless Alliance, to Marlene Dortch, FCC, FCC File Nos. 0006203140 *et al*. (Apr. 8, 2014); UTC Comments at 2-4; Motorola Comments at 3.

[45] *See Harper v. Virginia Dep't of Taxation*, 509 U.S. 86, 95 (1993) (noting that "selective application of new rules violates the principle of treating similarly situated [parties] the same" (quoting *Griffith v. Kentucky*, 479 U.S. 314 (1987))); *James M. Beam Distilling Co. v. Georgia*, 501 U.S. 529, 537 (1991) ("But selective prospectivity also breaches the principle that litigants in similar situations should be treated the same, a fundamental component of stare decisis and the rule of law generally."); *Colo. Interstate Gas Co. v. FERC*, 850 F.2d 769, 774 (D.C. Cir. 1988) ("[D]issimilar treatment of evidently identical cases . . . seems the quintessence of arbitrariness

practice, many operators providing services to third parties similar to those proposed by SNG are apparently deemed eligible under Section 90.617.[46] These are not isolated examples, and the Commission has continued to approve such applications even after SNG filed its applications.[47] Even the two frequency coordinators opposing the SNG applications, EWA and UTC, have filed similar applications for their clients since SNG filed its applications.[48] SNG notes that EWA had one of its clients withdraw its application and the other cancel its license, but only after SNG pointed out the contradictory positions to the Commission. And EWA and UTC have even put forth a suggestion for building a LTE-based broadband network in the 900 MHz that would serve third party clients,[49] which would pose the same eligibility questions EWA and UTC raise here.

Second, even if there were a question regarding eligibility under Section 90.617(c) of the Commission's rules,[50] the waiver requested by SNG would be justified. The Commission may generally waive its rules for good cause shown.[51] Specifically, for wireless services, including

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and caprice."); *Westar Energy, Inc. v. FERC*, 473 F.3d 1239, 1241 (D.C. Cir. 2007) ("A fundamental norm of administrative procedure requires an agency to treat like cases alike.").

[46] *See, e.g.,* Rapid Communications, Call Sign WPJZ221; Allen Pooley, Call Sign WPUC290; Communications Unlimited, Call Sign WPUV824; Self Radio, Call Sign WPTN405; Joseph C. Habeeb, Call Sign WPJV544; Radioland, Inc., Call Sign WPRI644; DB Network Communications, Inc., Call Sign WPEY402; Randall Schmidt, Call Sign WNQL213; Specialty Corporation, Call Sign WPVI804; Creative Communications Sales and Rentals, Inc., Call Sign WQTB335; Radio Unlimited, Call Sign WQTE755; Radio Unlimited, Call Sign WQTG697; Radio Unlimited, Call Sign WQTG700.

[47] *See, e.g.*, Rueben Vazquez, Call Sign WPPG985 ("We provide radio service to private users"); Commenco, Call Sign WPKT872.

[48] *See* Tri-Electronics, Inc., FCC File No. 0006266925; Dirigio Wireless Inc, FCC File No. 0006247644; Golden State Communications, Inc, FCC File No. 0006249956. It appears that the SMR system that Golden State would have deployed over the 900 MHz I/B channels would have been provided by the third objector to SNG's applications, Motorola Solutions.

[49] *See* EWA/UTC 900 MHz Initiative Letter.

[50] 47 C.F.R. § 90.617(c).

[51] 47 C.F.R. §1.3.

those services governed by Part 90, the Commission may grant a request for waiver if it is shown that the underlying purpose of the rule "would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest."[52]

UTC and Motorola argue that the waiver standard has not been met because the spectrum will be warehoused and due to scarcity concerns.[53] First, SNG and its partners and customers have supplied substantial evidence that SNG and M2M have no intention to warehouse the spectrum. Furthermore, SNG proposes to use currently fallow spectrum, meaning by definition that there is no spectrum scarcity problem with respect to the channels in question, and, in any event, undertakes to submit to a limit on the number of channels it can seek in a market.

There is good cause for a waiver here due to the many public interest benefits that will be derived from M2M's network. As SNG and M2M have indicated, the waiver will ensure that the purpose of the rule – ensuring that frequencies remain available "*for PMRS uses*" – is met in a case where strict application of the rule would contravene this purpose.[54] While the rules allow modification of initial licenses to remove the spectrum entirely from PMRS uses,[55] SNG does not propose such a course. Instead, it plans to put the spectrum exclusively to PMRS uses. But a refusal to grant a waiver would elevate form over substance in light of the Commission's

[52] 47 C.F.R. §1.925(b)(3)(i); *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

[53] UTC Comments at 3-5; Motorola Comments at 3-5.

[54] Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 1463, 1537 ¶ 141 (1995) (emphasis added).

[55] 47 C.F.R. § 90.621(f).

decision to open up the band for SMR services in certain circumstances.[56] Even absent a waiver, a licensee is fully able under the rules to modify its license for commercial use or assign it to an SMR provider.[57]

V. PROPOSED CONDITIONS

To leave no doubt that M2M's network will serve the public interest, SNG has indicated its willingness to submit to certain targeted, voluntary conditions regarding the use of the channels, loading, channel aggregation, and reconfiguration. To repeat, SNG is willing to accept conditions limiting the use of the channels so that they can only be used to serve Part 90 eligibles; meeting additional interim milestones to ensure progress towards these requirements and continuous loading of the network's channels; restricting the aggregate channels licensed and leased to SNG and M2M so as not to exceed 20 plus up to 40% of the remaining channels as of June 24, 2014, even after the loading requirements are met; and if there is a reconfiguration of the 900 MHz I/B band, relocating at SNG's own expense to other channels in the band, provided that each license comprises the same number of channels.

The conditions fully address the objections raised in the EWA, UTC, and Motorola comments. The eligibility concerns raised are addressed by the channel use condition because use will be limited to I/B purposes. The warehousing and speculation concerns are addressed by the loading condition because the channels will have to be put to use on a more aggressive schedule than normally imposed on a 900 MHz I/B license. And the concern raised by UTC that SNG and M2M will monopolize the spectrum is addressed by both the loading and channel

[56] *See* Improving Public Safety Communications in the 800 MHz Band, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order*, 19 FCC Rcd. 14969 (2004).

[57] 47 C.F.R. § 90.621(f).

aggregation conditions because those conditions will limit the number of unbuilt channels that can be licensed to SNG and limit the total number of channels licensed to SNG.

In addition to the conditions proposed by SNG, EWA recommends a set of "provisos."[58] EWA demands that the use "be limited to B/ILT eligible entities, not those eligible under Part 90, since that would include public safety/governmental entities."[59] SNG does not object to this proviso, but notes that some of its potential customers are involved in border security projects. These private contractors should not be considered affected by this proviso.

EWA contends that "SNG should be subject to a more detailed construction showing to ensure that facilities are capable of providing meaningful coverage" and "should provide copies of site leases and documentation of payment."[60] EWA seeks to expressly prohibit "site savers" or other equipment that, at most, facially meets current FCC construction requirements.[61] SNG does not believe these additional requirements are necessary. The Commission's construction requirements are clear and SNG will comply with them. If there is any doubt as to whether SNG is in compliance, either the FCC or other interested parties can raise questions at the appropriate time and under existing procedures.

EWA also believes that loading should be verified by the Commission and not simply self-reported by SNG.[62] This proviso is also unnecessary because if there is any doubt whether a loading requirement has been met, the Commission already has the authority to investigate and make a determination.

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[58] EWA Comments at 6-7.

[59] *Id.* at 6.

[60] *Id.*

[61] *Id.*

[62] *Id.*

EWA suggests that SNG should be subject to a cap of 20 channels per market.[63] This is far more stringent than the Commission's existing rule. Under that rule, once the loading of the 20 channels is complete, a licensee can apply for additional channels.[64] The implication from that rule is that the Commission intended each applicant to be eligible for additional channels beyond the initial 20 upon meeting the loading requirements. SNG has volunteered to give up some of this flexibility by restricting its aggregate totals to 40% of the remaining channels above 20 as of June 24, 2014. But forfeiting all of the flexibility allowed by the Commission rules would not permit SNG and M2M to fulfill their business plan.

Finally, EWA requests that whatever conditions are imposed on SNG licenses also be imposed on SNG's partners with whom SNG and M2M may enter into *de facto* transfer leases.[65] SNG will not speak for its partners here, but notes that all *de facto* leases will be submitted to the Commission for approval. SNG expects that the Commission would impose similar conditions on any leases that are entered into.

VI. CONCLUSION

The Commission has an exciting opportunity to help SNG and M2M deploy a licensed, nationwide network dedicated to business applications for machine-to-machine communications that will serve the public interest in a variety of ways and for many years to come. The proposed voluntary conditions will ensure that no public interest harms will arise out of the Commission's approval of the applications. The Commission should therefore swiftly approve the applications and waiver requests.

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[63] *Id.*

[64] *See* 47 C.F.R. § 90.617(a)(1)(iii).

[65] EWA Comments at 5.

Respectfully Submitted,

/s/

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August 11, 2014

DECLARATION

The foregoing Reply Comments of Spectrum Networks Group, LLC have been prepared using facts of which I have personal knowledge or upon information provided to me. I declare under penalty of perjury that the foregoing is true and correct to the best of my information, knowledge and belief.

Executed on August 11, 2014.

J. Barclay Knapp
Chief Executive Officer
Spectrum Networks Group, LLC